

A NEW GENUS AND SPECIES OF TETRANYCHIDAE¹
(Acarina)

ROBERT E. BEER AND D. S. LANG

*University of Kansas, Lawrence***Schizonobiella** Beer and Lang, new genus

True claws reduced to short slender pads bearing one pair of tenent hairs. Empodium short, stout and strongly uncinat, bearing on each side a single row of hairs anastomosing near their apices to form a terminal tenent. Female tarsus I and II each with a single pair of duplex setae. Male tarsus I with three or four pairs of duplex setae; tibia I with six to eight pairs of duplex setae; tarsus II with a single pair of duplex setae.

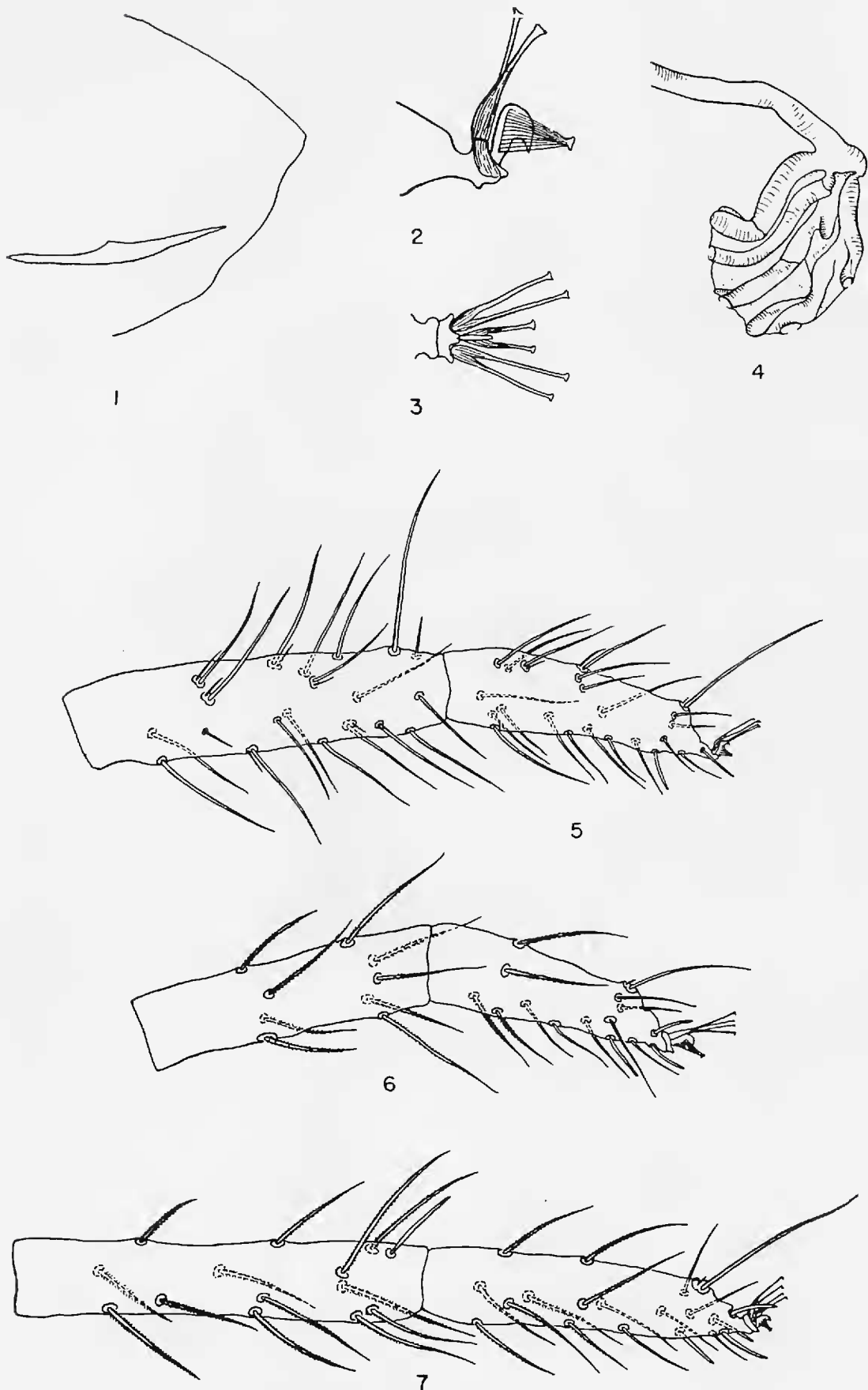
Type of genus: Schizonobiella aeola, Beer and Lang, new species.

This genus is proposed to accommodate a species that shows considerable affinity with *Schizonobia* Womersley and *Petrobia* Murray, but significant differences are apparent. Like *Schizonobia* the empodial tenent hairs have united but the degree of unity is less pronounced in *Schizonobiella*. In *Petrobia* the empodial tenent hairs are free. Unlike any known genus in the family Tetranychidae, the female of *Schizonobiella* has a single pair of duplex setae on tarsus I and the male has three pairs of duplex setae on this segment. The male is also unique in having duplex setae on tibia I. The peritremes of *Schizonobiella* apparently are more similar to those of *Schizonobia* and *Hystrichonychus* than to *Petrobia*, although the exact nature of these structures in *Schizonobia* is rather vague in Womersley's (1940) description of the genus.

Schizonobiella aeola Beer and Lang, new species

Female:—Terminal sensillum of palpus long, slender, peglike, rounded on distal end. Stylophore one and one-half times as long as broad, emarginate on posterior margin, broadly rounded on anterior margin, striations longitudinal, irregularly so; peritreme elbowed, terminating in complex, anastomosing enlargement. Tarsus I with one pair of duplex setae, proximal member minute; ten tactile and one sensory setae proximal to duplex setae. Tibia I with thirteen tactile and one sensory setae. Tarsus II with one pair of duplex setae, proximal member minute; seven tactile and one sensory setae proximal to duplex setae. Tibia II with nine tactile setae. Striations of all legs transverse. Dorsal setae longer than longitudinal interval separating adjacent setae, plumose, tapering to a point; three pairs of dorsal propodosomal setae; one pair of humeral setae; three pairs of dorsocentral and three pairs of dorsolateral setae; two pairs of sacral setae; one pair of clunal setae; all dorsal setae set on tubercles. Three pairs of genital setae

¹ Contribution number 955 of the Department of Entomology, University of Kansas.



EXPLANATION OF FIGURES

Schizonobiella aeola Beer and Lang, new species. Fig. 1, Aedeagus of male. Fig. 2, Pretarsus of female leg II (lateral aspect). Fig. 3, Pretarsus of female leg II (dorsal aspect). Fig. 4, Peritreme of female. Fig. 5, Tibia and tarsus I of male. Fig. 6, Tibia and tarsus II of female. Fig. 7, Tibia and tarsus I of female. All figures drawn from holotype and allotype specimens.

present. Dorsal striations irregular, mostly transverse. Length of body 630μ , including rostrum 700μ ; greatest width 680μ .

Male:—Similar to female. Tarsus I with three pairs of duplex setae, the first pair with proximal member minute, second and third pairs with proximal member about one-third as long as distal member; five tactile setae proximal to last pair of duplex setae. Tibia I with six to eight pairs of duplex setae, ten to thirteen tactile and two sensory setae. Tarsus II with one pair of duplex setae, proximal member minute; nine tactile setae proximal to duplex setae. Tibia II with nine tactile setae. Aedeagus long, linear, gradually tapering to an acuminate tip, bending slightly dorsad. Length of body 500μ , including rostrum 560μ .

Holotype female, SIX MILES SOUTH OF ALICE, TEXAS, July 18, 1954, W. T. Atyeo, sweeping grass. *Allotype*: Male, same data as holotype. *Paratypes*: Two males and thirteen females, same data as holotype.

Holotype, allotype, one male and eleven females (paratypes) in the Snow Entomological Museum, University of Kansas. One male and two females (paratypes) deposited in the United States National Museum.

Considerable variation in size, number and distribution of setae on the male tibia and tarsus I is apparent in this species. One of the three male specimens in the type series has four rather than three pairs of duplex setae on tarsus I. The length of the proximal members of duplex setae on tarsus I, except for the seta of the first pair which is always minute, may be very short or one-third as long as the distal member. Because of this variability in male leg chaetotaxy, a female specimen has been selected as holotype for this species.

Due to the rather loose association of empodial tenent hairs, these sometimes become separated into groups which present the appearance of an abnormal condition that is due entirely to the mounting technique used. The most frequent abnormality of this type would appear as two groups of hairs, each with a terminal tenent, on each side of the empodial claw. Such anomalous configurations of the pretarsi, however, are easily interpreted by studying the pretarsi of all eight legs on the specimen, since mites mounted with reasonable care rarely appear with this deformity on more than one or two appendages.

LITERATURE CITED

WOMERSLEY, H.

1940. Studies in Australian Acarina Tetranychidae and Trichadenidae. Trans. Roy. Soc. South Australia 64(2):233-265.